40. (Amended) A method for determining if an individual has a predisposition to develop thrombosis due to inherited APC-resistance caused by a gene mutation, said method comprising the step of:

detecting in a cell sample from the individual the occurrence of a Factor V gene mutation;

wherein the mutation gives rise to the expression of a mutated Factor V/Va molecule, which expression is associated with the expression of APC-resistance and a predisposition to develop thrombosis.

41. (Amended) The method of claim 40, wherein the mutation is detected as an abnormal absence or presence of a nucleic acid fragment or abnormal sequence in the Factor V gene, wherein the mutation is detected using nucleic acid hybridization.

42. (Amended) The method of claim 40, wherein the mutation is determined indirectly based on linkage thereof to a neutral polymorphism in the Factor V gene.

44. (New) The method of claim 40, wherein the Factor V gene mutation is detected as an abnormal absence or presence of a nucleic acid fragment or abnormal sequence caused by the mutation, wherein the Factor V gene mutation is detected using nucleic acid sequencing.

45. (New) The method of claim 40, wherein the Factor V gene mutation is detected as an abnormal absence or presence of a nucleic acid fragment or abnormal sequence caused by the mutation, wherein the Factor V gene mutation is detected using an immunoassay.

46. (New) A method for detecting a predisposition to developing thrombosis in an individual, said method comprising determining the presence in the individual's Factor V gene sequence of at least one mutation and comparing the individual's Factor V gene sequence to a normal Factor V gene sequence.